

# SEQUENCE LISTING

<110> Stubbs, Simon L.  
 Jones, Anne E.  
 Michael, Nigel P.  
 Thomas, Nicholas

<120> Fluorescent Proteins

<130> PA0111

<140> To be assigned

<141> 2001-09-28

<150> GB 0109858.1

<151> 2001-04-23

<160> 19

<170> PatentIn Ver. 2.1

<210> 1

<211> 717

<212> DNA

<213> Aequorea victoria

<400> 1

```

atgagtaaag gagaagaact ttctactgga gttgtcccaa ttcttgttga attagatggt 60
gatgttaaatg ggcacaaatt ttctgtcagt ggagaggggtg aagggtgatgc aacatacggg 120
aaacttaccc ttaaatTTTat ttgcactact ggaaaactac ctgttccatg gccaacactt 180
gtcactactt tctcttatgg tgttcaatgc ttttcaagat acccagatca tatgaaacgg 240
catgactttt tcaagagtgc catgcccga ggttatgtac aggaaagaac tatatttttc 300
aaagatgacg ggaactacaa gacacgtgct gaagtcaagt ttgaaggtga tacccttggt 360
aatagaatcg agttaaaaagg tattgatttt aaagaagatg gaaacattct tggacacaaa 420
ttggaataca actataactc acacaatgta tacatcatgg cagacaaaaca aaagaatgga 480
atcaaagtta acttcaaaaat tagacacaac attgaagatg gaagcgttca actagcagac 540
cattatcaac aaaatactcc aattggcgat ggccctgtcc ttttaccaga caaccattac 600
ctgtccacac aatctgccct ttcgaaagat cccaacgaaa agagagacca catggtcctt 660
cttgagtttg taacagctgc tgggattaca catggcatgg atgaactata caaatag 717
  
```

<210> 2

<211> 238

<212> PRT

<213> Aequorea victoria

<400> 2

Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val

1	5	10	15
Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu	20	25	30
Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys	35	40	45
Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe	50	55	60
Ser Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Arg	65	70	75
His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg	85	90	95
Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val	100	105	110
Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile	115	120	125
Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn	130	135	140
Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly	145	150	155
Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val	165	170	175
Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro	180	185	190
Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser	195	200	205
Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val	210	215	220
Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys	225	230	235

<210> 3

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
protein

<400> 3

Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val  
1 5 10 15

Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu  
20 25 30

Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys  
35 40 45

Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Leu  
50 55 60

Ser Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Arg  
65 70 75 80

His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg  
85 90 95

Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val  
100 105 110

Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile  
115 120 125

Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn  
130 135 140

Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly  
145 150 155 160

Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Gly Val  
165 170 175

Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro  
180 185 190

Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser  
195 200 205

Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Gly Phe Val  
210 215 220

Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys  
 225                                      230                                      235

<210> 4

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
 protein

<400> 4

Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val  
 1                                      5                                      10                                      15

Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu  
                                     20                                      25                                      30

Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys  
                                     35                                      40                                      45

Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Leu  
                                     50                                      55                                      60

Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Arg  
                                     65                                      70                                      75                                      80

His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg  
                                     85                                      90                                      95

Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val  
                                     100                                      105                                      110

Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile  
                                     115                                      120                                      125

Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn  
                                     130                                      135                                      140

Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly  
                                     145                                      150                                      155                                      160

Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Gly Val  
                                     165                                      170                                      175

Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro  
 180 185 190

Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser  
 195 200 205

Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val  
 210 215 220

Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys  
 225 230 235

<210> 5

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
 oligonucleotide

<400> 5

ggtagcggggcc gccaccatga gtaaaggaga agaacttttc ac

42

<210> 6

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
 oligonucleotide

<400> 6

ggtagcggggtt aaccggtttt gtatagttca tccatg

36

<210> 7

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
 oligonucleotide

<400> 7  
ggtacggggcc gccaccatgg gatccaaagg agaagaactt ttcac

45

<210> 8  
<211> 37  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 8  
ccaacacttg tcactactct ctcttatggg gttcaat

37

<210> 9  
<211> 37  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 9  
attgaacacc ataagagaga gtagtgacaa gtggttgg

37

<210> 10  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 10  
ccaacacttg tcactactct cacctatggg gttcaatgct ttcca

45

<210> 11  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 11

tgaaaagcat tgaacaccat aggtgagagt agtgacaagt gttgg

45

<210> 12

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 12

gacaaacaaa agaatggaat caaagccaac ttcaaaatta gacac

45

<210> 13

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 13

gtgtctaatt ttgaagtgg ctttgattcc attcttttgt ttgtc

45

<210> 14

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 14

caacattgaa gatggaggcg ttcaactagc agacc

35

<210> 15

<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 15  
ggctgctag ttgaacgct ccattctcaa tgttg 35

<210> 15  
<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 16  
ccacatggtc cttcttgggt ttgtaacagc tgctgg 36

<210> 17  
<211> 36  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 17  
ccagcagctg ttacaaagcc aagaaggacc atgtgg 36

<210> 18  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 18



ttttactoga gatggaagaa ctgttcccc tca

33

<210> 19

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 19

ttttgaagct tggagctgat ctgactcagc agg

33